

or ameliorator, the trees remaining to defray the expense and loss of time. The prejudice of the damage done to trees by sheep is groundless, compared to the benefit to be derived from their use as here recommended; and we are quite sure that it could be acted on with the greatest benefit to the land and to that of the vicinity by the shelter afforded, and that the value of every estate, large or small, would be very much increased by the general adoption of such a plan.

S. E. COOK.

Carlton, 16th August.

XX.—*Letter from CAPTAIN DUCANE, R.N., to the Rev. LEONARD JENYNS, on the subject of the Metamorphosis of Crustacea**. With Plates VI. and VII.

Southampton, August 20, 1838.

Sir,

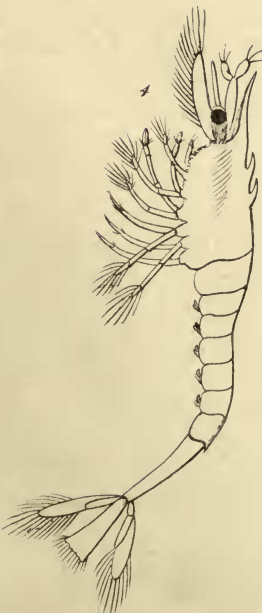
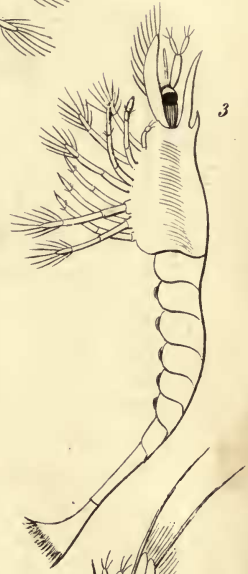
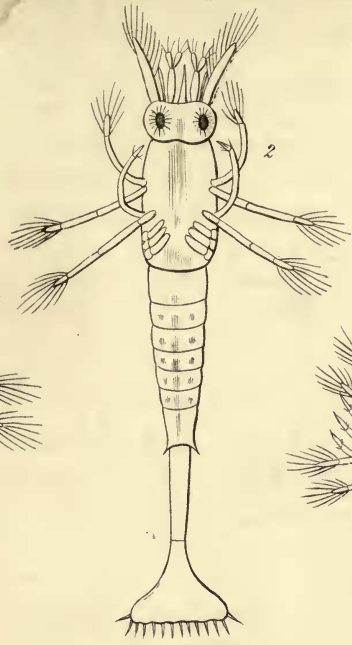
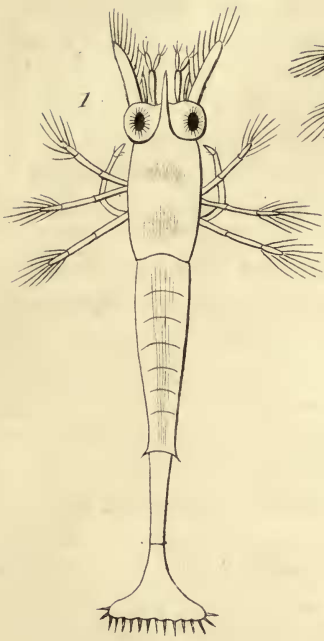
THE British Association for the Advancement of Science having requested me to present a report at its Meeting at Newcastle this year on the subject of the metamorphoses of the *Crustacea* in the Southampton waters, I beg to trouble you with the following observations relative to the metamorphoses of the ditch prawn (*Palæmon variabilis*) and common shrimp (*Crangon vulgaris*), which I shall be obliged by your laying before the Association.

I last year, through Mr. MacLeay, presented drawings of the larva of the ditch prawn, exhibiting the appearance it presented from the time of its first exclusion from the egg till the end of the third day, when my specimens died. I have not this year been able again to obtain the larva of the prawn direct from the egg; but the ditch which is the locality of this particular species, having supplied me with the larva in great abundance, I have been enabled very satisfactorily to trace the various changes it is subject to in the progress towards its adult state.

These changes, as shown in the accompanying drawings, are four in number; the three last may however, I think, rather be considered as a gradual and progressive development

* This important letter arrived at Newcastle too late to be read at the Section of Zoology and Botany.—EDIT.

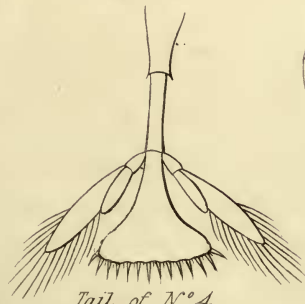
Larva of the Ditch Prawn. *Palæmon variabile*.



Corselet of N.º 4
as Cast.

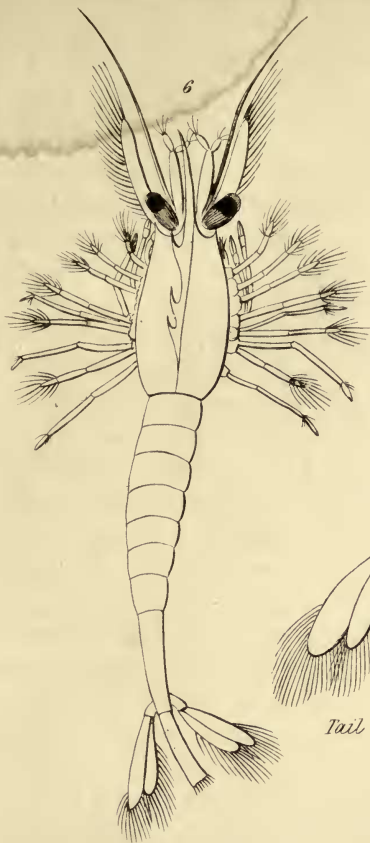


Tail of N.º 4.

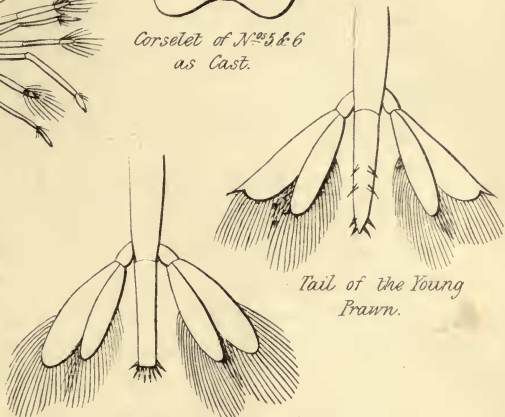




Larva of the Ditch Prawn. *Palæmon variabile*.

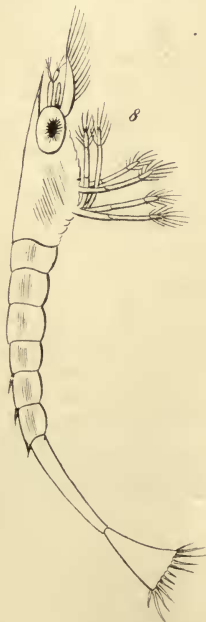
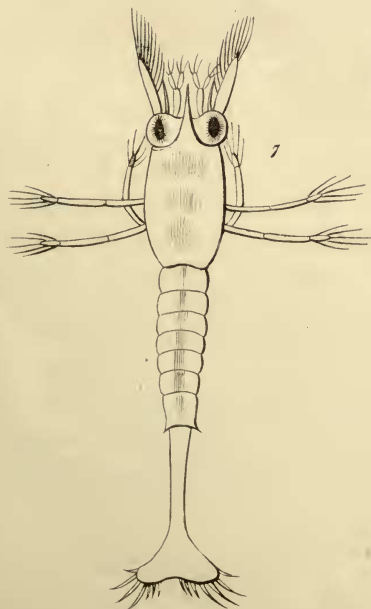


Corselet of N^{os} 5 & 6
as Cast.



Tail of the Young
Prawn.

Tail of N^{os} 5 & 6



Larva of the Common Shrimp. *Crangon vulgaris*.